

What is claimed is:

1. An optical waveguide circuit device comprising:

a substrate having a cleavage plane;

a waveguide formed from a core on said substrate;

and

an incision line constructed by a groove or/and a separating slit formed by crossing at least one portion of the core of said waveguide;

wherein a face of said incision line is set to a face different from the cleavage plane of said substrate.

2. The core of the waveguide of the optical waveguide circuit device according to claim 1 comprising:

one or more optical input waveguides arranged side by side;

a first slab waveguide connected to output ends of said optical input waveguides;

an arrayed waveguide connected to an output end of said first slab waveguide and including a plurality of channel waveguides arranged side by side for transmitting light that has traveled through said first slab waveguide, said channel waveguides having different predetermined length;

a second slab waveguide connected to an output end of said arrayed waveguide; and

a plurality of optical output waveguides arranged

side by side and connected to an output end of said second slab waveguide ;

wherein the incision line is a groove formed in a mode crossing at least said arrayed waveguide.

3. The optical waveguide circuit device according to claim 2, wherein a half-wave plate is inserted into the groove crossing said arrayed waveguide.

4. The core of the waveguide of the optical waveguide circuit device according to claim 1, which is a core of an arrayed waveguide grating type optical multiplexer/demultiplexer comprising:  
one or more optical input waveguides arranged side by side;

a first slab waveguide connected to output ends of said optical input waveguides;

an arrayed waveguide connected to an output end of said first slab waveguide and including a plurality of channel waveguides arranged side by side for transmitting light that has traveled through said first slab waveguide, said channel waveguides having different predetermined length ;

a second slab waveguide connected to an output end of said arrayed waveguide; and

a plurality of optical output waveguides arranged side by side and connected to an output end of said second

slab waveguide;

wherein the incision line is set to a separating slit for separating at least one of said first and second slab waveguides. The separating slit is formed to cross an optical path of at least one of said first and second slab waveguides;

a slide moving member slides and moves at least one side of the separating slab waveguide separated with this separating slit along said separating face depending on a temperature of AWG; and

a light transmission central wavelength of an arrayed waveguide grating type optical multiplexer/demultiplexer is shifted by a slide moving operation of said slide moving member depending on the temperature.